



A Survey on Salesmen Location Tracking System

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Abstract—

This paper describes about Smartphone application which will be able to track salesman's location in real time. Though Smartphone can be used to track salesman, but tracking salesman is different from other as salesman generally work for 8-10 hours daily travelling all day long, the battery running for such a long time is not easy. This salesman tracking system will be able to track salesman for a long time without draining his battery. The manager would be able to get detail about location of salesmen under him. The salesmen would be able to see the current location of their co-salesmen so they will not visit the same place twice. This application will also allow them to submit immediate order and generate immediate reports.

Keywords— Salesman tracking using Smartphone; GPS; Android

I. INTRODUCTION

Smart mobile devices are the fastest growing computing platforms. This rapid development and growth of smart phones in consumer market over the last few years has alarmed the platform that is utilized for social business, entertainment, gaming, productivity marketing using software applications involving global positioning sensors (GPS), and wireless connectivity, photo/video capabilities, built in web browsers, voice recognition and various other native capabilities of the smart phone. These features present in mobile devices present new challenges and requirements to application developers that are not found traditional mobile apps [2].

There are many companies where they have a need to track their salesmen periodically throughout the day reasons being to avoid salesman cheating the manager by not visiting the places he has been asked to track salesman performance by a real time data or showing miscellaneous

expenditure without actually spending or using it example, travelling charges.

Salesman location tracking app will allow a company to track their salesmen location in real time, the salesman will be able to submit immediate order and generate report automatically.

The daily schedule of salesman will be provided to them through the app by the manager. This will save the salesman's time that he uses to report to the office before and after going to the field thus he then only needs to travel between his home and field thereby minimizing the reporting time to the office and increasing the efficiency

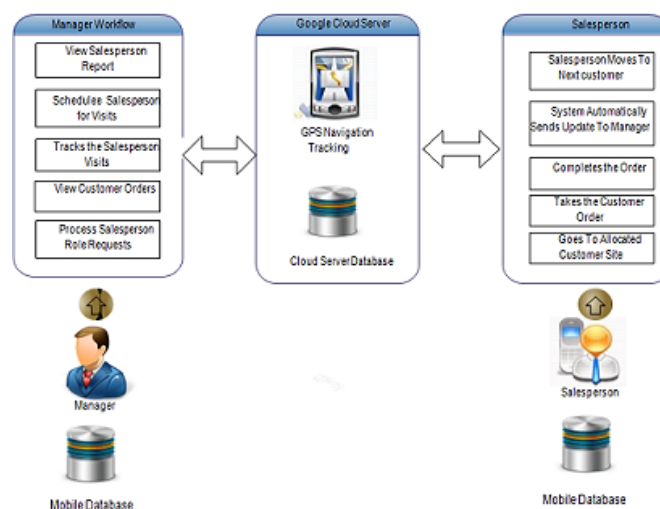


Fig. 1 Android based salesman location tracking system

Organizing of the paper in this as section II describes the literature review, Section III provides the proposed work, Section IV describes the Conclusion.



II. LITERATURE REVIEW

The authors in this [1] say that for indoors and closed environments GPS systems fall short and it becomes difficult to acquire the necessary satellites for accurate position computation. Some of the alternate techniques that are proposed for indoor location tracking include the integration of Bluetooth technology with 3G networks. The proposed solution suggests that Bluetooth terminals can exchange information with each other and then a Bluetooth access point provides the interface to a mobile network.

The author of this [3] says that one could probably say with some certainty that the set of sensors selected by a design team is heavily influenced by the team's dual goals of maximizing the system's performance while minimizing its total cost. Unfortunately for system designers, however, system cost and performance are usually directly, rather than inversely, related—very accurate sensors may improve the performance of a system, but they tend to cost more than similar, less accurate sensors.

In this paper [4] the concerned party (especially parents) when want to get the location of the second party, will send a simple message from their multimedia phone which has a hidden code out of the scope of user understanding. The smart phone will automatically detect the code and will send user's location without even turning on the GPS.

This paper [5] proposed architecture for developing battery efficient employee tracking systems in fact any app which uses GPS and sends data frequently can use this architecture.

The author in [6] includes one essential issue in PCS network is the location management or mobility tracking problem to keep location up-to-date, a mobile subscriber must update its current location with its HLR from time to time.

In this paper [7] target tracking, MNTS utilizing SMS mainly adopts two proposed novel approaches: location prediction and dynamic threshold to reduce the number of short message transmissions while maintaining location accuracy within an acceptable range. Location prediction utilizes the current target's location, moving speed, bearing to predict its next location.

The author in [8] says that Disruption tolerant networks (DTNs) are sparse mobile-ad hoc networks where nodes connect with each other intermittently. Since DTNs allow people to communicate without network infrastructure, they are widely used in battlefields, wildlife tracking, and vehicular communications. Location information is extremely important to enable context-aware and location-based applications. However, due to the lack of fixed infrastructure and continuous network connection in

DTNs, identifying the location of mobile users and tracking their movement trajectories are challenging.

This paper [9] includes the concept of CRM. One of the possibilities is to have the better client support – not only in the after sales phase, but also in all other phases of the client communication process, i.e. in the acquisition phase or in the loyalty phase. To develop solutions which integrate the high potentials of multimedia, internet and mobile communication as well as the potentials of Collaborative Systems (CS). In a certain manner, clients of a company or organisation can be part of a collaborative solution.

In this paper [10] author proposed a system that include a child module and two receiver modules on getting the information about the missed child on periodic basis.

This paper [11] proposed a smart tracking System an android based application for travellers to obtain the geo-location and tag it with multimedia features. This application also allows users to create, store and view their vehicles. Vehicle tracker combines places visited, notes taken and image captured.

In this paper [12] authors proposed a mobile application along with web enabled PC application for sales manager and the salespersons. This application has the main feature of scheduling the meetings and the follow up of meetings which is Lead management. Manager can schedule meeting of salesperson with the client through Web application using SaaS on cloud. An Email alert and message notification will be sent to client and salesperson, also the later will be able to give the reviews of meetings through Android application using SOAP protocol used to communicate with Web application.

This paper [13] gives an idea about Location-based services (LBS) which are used more frequently by the mobile users. A location based service is a location provider that is used to track the location of any mobile node through the mobile network that includes vehicular tracking system called fleet net. In mobile communication the tracking of location plays a major role using this LBS services. In order to track the location of the user's mobile device it checks the nearest base station available to the mobile network and GPS for tracking location. The GPS satellite is used for navigation purpose and it is combined with LBS is used to track the location of mobile device

III. PROPOSED WORK

We are going to develop an application on real time salesman location tracking system for overcoming the issues present in previous salesman tracking system. One of the issues is draining of battery of Smartphone while continuously tracking the salesman as salesman works for more than 8-10 hours daily. To overcome this issue we are going to develop a battery efficient salesman location



tracking system. We will use the concept of dynamic timing, application is going to change time interval for getting location dynamically by determining salesman's speed of travel. Using this concept this application will dynamically predicts the mode of travel and changes its current interval time accordingly.

Another issue is there is no way provided for knowing which places has been visited by another salesmen so that the salesman will not visit same place twice or more due to this salesman visit same place again and again that his fellow salesmen has already visited. In this proposed application the salesman will place the location visited by him and notification will be send to other salesmen immediately so they will not visit that particular place again.

In proposed system there will be a provision provided to the salesman to submit the immediate order placed by the customer and to automatically generate their report based on place visited and distance travelled. This will reduce the burden of salesman to prepare report manually and visit company again and again to place order given by the customers.

In this proposed system, the managers of the company will be registered first and an unique secret code will be generated and provided to each of them and then salesmen of the company is going to be registered and by using the secret code provided to managers, they are going to includes respective salesmen under them. After then managers will able to track location of salesman and their performance of his team whenever he wants.

There will be an option provided to registered managers to place the daily schedule of the salesman and the salesmen will get notification about their respective schedule due to this lots of time of salesman will be saved as there is no need to visit company first for getting is daily schedule and he can directly go to his visiting place directly from his home.

Since the data which is going to be stored in the database of the company is of great importance and to let the data not be misused by the outsider an encryption mechanism is going to be applied to the data so that no hacker can hack the data of the company.

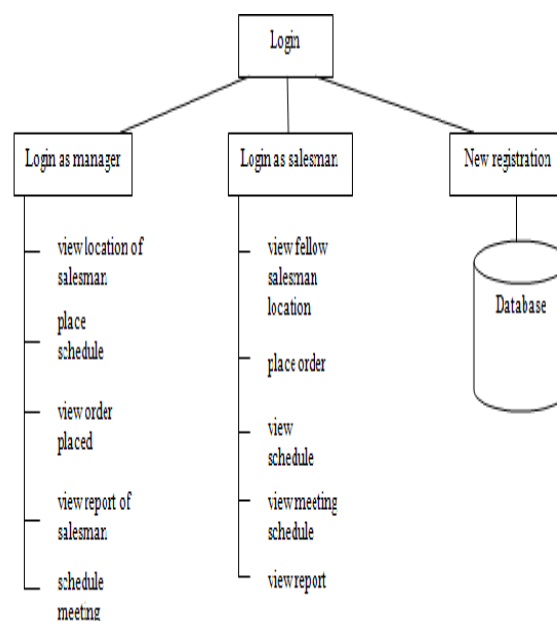


Fig. 2 Flowchart of Salesman location tracking application

The various modules of this application are as follows:

- Login as manager
- Login as salesman
- New registration for manager
- New registration for salesman

IV. CONCLUSION

In this new proposed system we are going to overcome the issue of existing system we got while literature reviewing the previous research paper. Mainly of which are battery draining of smart phones while using the application which require tracking using GPS, complex user interface, deficient data storage.

In this proposed salesman location tracking system company are going to track location of salesman in real time. Salesman would be able to place immediate order and generate report automatically and view its daily schedule.

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